

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A system for printing, said system comprising:

an optical sensor that is moveable relative to a print medium; and

a print medium feed mechanism comprising a roller, wherein a mark located on said roller and visible to said optical sensor within the range of movement of said optical sensor provides a [[,]] ~~said mark providing a fixed~~ and known location that can be used to establish a position of said optical sensor, wherein a first position of said optical sensor established according to said mark is usable for determining an error associated with a second position determined using information from said print medium sensed as said optical sensor moves relative to said print medium.

2. (Canceled).

3. (Currently Amended) The system of Claim 1 ~~2~~ wherein said mark on said roller is visible to said optical sensor during transport of said print medium.

4. (Currently Amended) The system of Claim 1 ~~2~~ wherein said mark is located at the ends of said roller.

5. (Currently Amended) The system of Claim 1 ~~2~~ wherein said mark is one of a plurality of marks located at fixed and known positions along the length of said roller, wherein said optical sensor is positioned to sense said marks on said roller.

6. (Original) The system of Claim 5 further comprising a second optical sensor positioned to sense information from said print medium.

7. (Original) The system of Claim 1 wherein said feed mechanism comprises a second roller, wherein said mark is located on one of said rollers.

8. (Canceled).

9. (Canceled).

10. (Currently Amended) The system of Claim 1 ~~8~~ wherein said second ~~position determined according to said information sensed from said print medium~~ is used for determining a rotational mounting error associated with said optical sensor.

11. (Original) The system of Claim 1 further comprising:
a printhead coupled to said optical sensor, said printhead adapted to eject ink onto said print medium, wherein said position of said optical sensor is used to establish a position of said printhead.

12. (Currently Amended) A method of correcting a position of a printhead in a system for printing, said method comprising:
establishing an initial position of said printhead;
estimating a second position of said printhead based on information sensed as said printhead moves relative to a print medium, wherein said system comprises a feed mechanism for transporting said print medium, said feed mechanism comprising a roller; and
using a first marker in a known location on said roller to determine an error associated with said second position.

13. (Original) The method of Claim 12 further comprising:
estimating a third position of said printhead based on information
sensed as said printhead moves relative to said print medium; and
using said error associated with said second position to correct said
third position.

14. (Original) The method of Claim 12 wherein said initial
position is established using said first marker.

15. (Currently Amended) The method of Claim 12 wherein said
initial position is determined using an edge of said print medium.

16. (Original) The method of Claim 12 wherein said initial
position is established using a second marker.

17. (Original) The method of Claim 12 wherein said printhead
moves in combination with an optical sensor, said optical sensor adapted to
detect said first marker.

18. (Canceled).

19. (Currently Amended) The method of Claim 12 wherein said
~~system for printing further comprises a feed mechanism for transporting~~
~~said print medium, said feed mechanism comprising a first roller and~~
further comprises a second roller, wherein said first marker is located on
one of said rollers.

20. (Original) A method of detecting rotational mounting error between an optical sensor and a printhead in a system for printing, said method comprising:

receiving a signal that identifies a direction of relative motion between said optical sensor and printhead moving in combination and a print medium;

estimating a position of said optical sensor and printhead using information sensed from said print medium; and

identifying any difference between a position of said optical sensor and printhead based on said direction of relative motion and said position of said optical sensor and printhead estimated using said information sensed from said print medium, said any difference indicating presence of a rotational mounting error.

21. (Original) The method of Claim 20 wherein said print medium moves in a first direction along a first axis and said optical sensor and printhead move in a second direction along a second axis orthogonal to said first axis, wherein said signal is for identifying whether said direction of relative motion is in said first direction or in said second direction.

22. (Original) The method of Claim 20 further comprising:
correcting for said rotational mounting error if said any difference is identified.

23. (Original) The method of Claim 20 further comprising:
using a feature having a known location to establish an initial position of said optical sensor and printhead.

24. (Original) The method of Claim 20 further comprising:
using a feature having a known location to determine an error
associated with said position of said optical sensor and printhead estimated
using said information sensed from said print medium.